

Claims

1. A self-correcting sensing element device comprising a base, a generally
5 elongated flexible support member having a base end, a working end, and
an axis in the direction of elongation, said base end fastened to said base,
and a sensing element in said working end, said generally elongated
flexible support member being capable of returning to its original shape
after being deformed.
- 10 2. Sensing element device of claim 1 wherein said sensing element is
oriented at 90° from said axis of said generally elongated support member.
3. Sensing element device of claim 1 wherein said sensing element is
oriented in the same direction as the axis of said generally elongated
flexible support member.
- 15 4. Sensing element device of claim 1 wherein said flexible support member
is made of a material having a durometer Shore hardness A in the range of
40 to 80.
5. Sensing element device of claim 4 wherein said material has a durometer
Shore hardness A in the range of 50 to 70.
- 20 6. Sensing element device of claim 1 including wires for providing power to
said sensing element, said wires being strung through said flexible support
member.
7. Sensing element device of claim 1 including wires for connecting said
sensing element to a system for detecting the presence of a person or
25 object in a doorway.
8. Sensing element device of claim 7 installed in a doorway.
9. Sensing element device of claim 7 wherein said sensing element is
oriented 90° from the axis of said generally elongated flexible member.
10. Sensing element device of claim 7 wherein said sensing element is a
30 photocell.

11. Sensing element device of claim 7 wherein said sensing element is a microwave transceiver.
12. Sensing element device of claim 7 wherein said sensing element is an ultrasonic device.
- 5 13. A safety system for an automatic door, for detecting the presence of a person or object in the path of a door in the process of opening or closing, comprising at least one radiation element positioned to detect presence or motion in or near said door and an electrical presence detecting system responsive thereto, wherein said at least one radiation element is mounted
10 on a flexible, generally elongated support, said flexible generally elongated support being capable of returning to its original shape immediately after the release of a bending force.
14. Safety system of claim 13 wherein at least one of said radiation elements is mounted at 90° from the direction of elongation of said support.
- 15 15. Safety system of claim 13 wherein at least on of said radiation elements is mounted at the end of one of said flexible elongated supports.
16. Safety system of claim 13 wherein said flexible generally elongated support is made of material having a dorometer Shore hardness A in the range of 40-80.
- 20 17. Safety system of claim 13 wherein said flexible generally elongated support is made of material having a dorometer Shore hardness A in the range of 50-70.
18. Safety system of claim 13 wherein said at least one radiation element is a photocell.
- 25 19. Safety system of claim 13 wherein said at least one of said radiation elements is a passive radiation element.
20. A system for detecting the presence of a person or object in the path of an automatic door in the process of opening, comprising a presence detecting system including at least one radiation transmitter on one side of said door
30 and at least one radiation detector on the other side of said door, wherein said transmitter and said detector are mounted on flexible, generally

elongated supports, said flexible generally elongated supports being capable of returning to their original shape immediately after the release of a bending force.